

What is claimed is:

QMS/17
1. A mobile electronic commerce system for paying, via wireless communication means, a required amount from an electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side, comprising:

service means for connecting said electronic wallet and said supply side via said communication means,

wherein said service means installs, via said communication means, a program for an electronic negotiable card in said electronic wallet;

wherein said electronic negotiable card that is installed is employed to receive a product or a service, or a required permission, from said supply side;

wherein based on a program for said electronic negotiable card a settlement process for which said electronic negotiable card is used, is performed by said electronic wallet and said supply side via said communication means; and

20 wherein, in association with said settlement process, said data that are stored in said electronic wallet and at said supply side are transmitted to said service means at a predetermined time, and are managed thereat.

25 2. A mobile electronic commerce system for paying, via wireless communication means, a required amount using an electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side,

wherein, via said wireless communication means, said electronic wallet applies the purchase of a program for an electronic negotiable card to service means for issuing said program for said electronic negotiable card;

5 wherein said service means receives from electronic negotiable card issuing means data concerning said electronic negotiable card, and with settlement means performs a settlement that is associated with the purchase of said electronic negotiable card;

10 wherein, via said wireless communication means, said program for said electronic negotiable card is installed in said electronic wallet;

15 wherein said electronic negotiable card that is installed is employed for receiving a product or a service, or a required permission, from said supply side; and

20 wherein, based on said program for said negotiable card, a settlement process based on the use of said negotiable card is performed by said electronic wallet and said supply side via said communication means.

25 3. A mobile electronic commerce system according to claim 1 or 2, wherein, in said settlement process for which said negotiable card is used, said electronic wallet generates an electronic check corresponding to a payment amount based on said program provided for said negotiable card, and transmits said electronic check to said supply side via said wireless communication means; wherein said supply side, upon receiving said electronic check, transmits an electronic receipt to said electronic wallet; wherein,

thereafter, said electronic wallet and said supply side respectively store said electronic receipt and said electronic check as data concerning said settlement process.

4. A mobile electronic commerce system according to
5 claim 1 or 2, wherein, in said settlement process for which
said electronic negotiable card is used, based on said
program provided for said electronic negotiable card said
electronic wallet transmits data for said electronic
negotiable card to said supply side via said wireless
communication means; wherein said supply side, upon receiving
said data for said electronic negotiable card, transmits to
said electronic wallet an electronic certificate required for
the granting of entrance permission and the admission of the
owner of said electronic wallet; and wherein, thereafter,
said electronic wallet and said supply side respectively
store said electronic certificate and said data for said
electronic negotiable card as data concerning said settlement
process.

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5. A mobile electronic commerce system according to
claim 1 or 2, wherein, in order to transfer said electronic
negotiable card that is installed in said electronic wallet
to a different electronic wallet, said electronic wallet
generates a transfer message using said electronic negotiable
card and transmits said message to said different electronic
wallet; wherein said electronic wallet deletes said stored
electronic negotiable card, and said different electronic
wallet transmits, to said service means, said transfer
message for said negotiable card; wherein, thereafter, said

service means installs a program for/said electronic negotiable card in said different electronic wallet.

6. A mobile electronic commerce system according to claim 1 or 2, wherein said electronic wallet transmits to 5 said service means, via said wireless communication means, an installation number to be recorded on or in a distribution medium, such as printed matter or a recording medium; and wherein said service means receives, from negotiable card issuing means, data concerning an electronic negotiable card that is to be issued, and through wireless communication installs a program for an electronic negotiable card corresponding to said installation number.

7. A mobile electronic commerce system according to claim 1 or 2, wherein said service means manages a template 15 program that is a model of a program for an electronic negotiable card, and based on said template program generates said program for said electronic negotiable card and installs said program in said electronic wallet.

8. A mobile electronic commerce system for paying, via 20 wireless communication means, a required amount from an electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side,

wherein a program for an electronic negotiable card 25 includes an inherent private key, and

wherein, when an electronic wallet employs said negotiable card, said private key is employed to add a digital signature to data that are to be transmitted to a

supply side via communication means.

9. A mobile electronic commerce system for paying, via wireless communication means, a required amount from an electronic wallet that includes said wireless communication means, and for receiving a product or a service, or a required permission, from a supply side,

wherein said electronic wallet holds an electronic payment card that serves as an electronic payment card program, and employs said electronic payment card when paying said required amount for said product or said service that is received from said supply side; and

wherein, via said wireless communication means, said electronic wallet and said supply side perform a settlement process that is associated with said payment.

10. A mobile electronic commerce system according to claim 9, wherein an electronic payment card settlement means for making a payment using said electronic payment card is provided for said supply side.

11. A mobile electronic commerce system according to claim 10, wherein service means is provided to connect, via said communication means, said electronic wallet and said electronic payment card settlement means and to connect, via said communication means, said payment card issuing means and said settlement means, so that said electronic wallet can purchase said electronic payment card through said service means.

12. A mobile electronic commerce system according to claim 11, wherein said electronic wallet, said electronic

payment card settlement means, and said service means individually include a plurality of types of communication means, and wherein said electronic wallet, said electronic payment card settlement means, and said service means employ 5 different communication means when communication among the three is conducted.

13. A mobile electronic commerce system for paying, via wireless communication means, a required amount from an electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side,

10 wherein said electronic wallet holds an electronic telephone card that serves as an electronic telephone card program, and employs said electronic telephone card when paying a required amount for a communication that is performed via wireless communication means using an exchange service provided by said supply side; and

15 wherein said electronic wallet and said supply side perform, via said wireless communication means, a settlement process that accompanies said payment.

20 14. A mobile electronic commerce system according to claim 13, wherein said supply side includes communication line exchange means and electronic telephone card settlement means for settling said payment using said electronic telephone card.

25 15. A mobile electronic commerce system according to claim 14, wherein service means is provided for connecting, via said communication means, said electronic wallet and said

5 electronic payment card settlement means, and for connecting, via said communication means, said payment card issuing means and said settlement means, so that said electronic wallet can purchase said electronic telephone card through said service means.

10 16. A mobile electronic commerce system according to claim 15, wherein said electronic wallet, said electronic telephone card settlement means, and said service means individually include a plurality of types of communication means, and wherein said electronic wallet, said electronic telephone card settlement means, and said service means employ different communication means when communication among the three is conducted.

15 17. A mobile electronic commerce system for paying, via wireless communication means, a required amount from an electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side,

20 25 wherein said electronic wallet holds an electronic ticket that is electronically constituted, and provides information concerning said electronic ticket; and

wherein said electronic wallet and said supply side perform, via said wireless communication means, an examination process for said electronic ticket for granting permission for an admission.

18. A mobile electronic commerce system according to claim 17, wherein electronic ticket examination means for examining said electronic ticket is provided for said supply

side.

19. A mobile electronic commerce system according to
claim 18, wherein service means is provided for connecting,
via said communication means, said electronic wallet and said
electronic ticket examination means, and for connecting, via
said communication means, said ticket issuing means and said
settlement means, so that said electronic wallet can purchase
said electronic ticket through said service means.

20. A mobile electronic commerce system according to
claim 18, wherein said electronic wallet, said electronic
ticket examination means, and said service means individually
include a plurality of types of communication means, and
wherein said electronic wallet, said electronic ticket
examination means, and said service means employ different
communication means when communication among the three is
performed.

21. A mobile electronic commerce system comprising:
said electronic wallet defined in claim 9;
electronic payment card settlement means;
electronic telephone card settlement means;
electronic ticket examination means;
service provision means;
settlement processing means;
payment card issuing means;
telephone card issuing means; and
ticket issuing means.

22. A mobile electronic commerce system according to
claim 11, wherein said electronic wallet holds an electronic

credit card and employs said electronic credit card to purchase said electronic payment card, said electronic telephone card or said electronic ticket.

23. A mobile electronic commerce system according to
5 claim 12, wherein said electronic wallet includes a plurality of kinds of wireless communication means as said plurality of types of communication means.

24. A mobile electronic commerce system according to
claim 23, wherein, as means for engaging in wireless communication with said electronic payment card settlement means or said electronic ticket examination means, said electronic wallet includes wireless communication means that has a shorter communication distance and a higher directivity than has the wireless communication means employed for said electronic telephone card settlement or for said service providing means.

25. A mobile electronic commerce system according to
claim 24, wherein, as means for engaging in wireless communication with said electronic payment card settlement means or said electronic ticket examination means, said electronic wallet includes optical communication means and radio communication means for engaging in wireless communication with said electronic telephone card settlement means or said service providing means.

26. A mobile electronic commerce system according to
claim 10, wherein said electronic payment card settlement means includes wireless communication means for engaging in communication with said service providing means.

27. A mobile electronic commerce system according to
claim 10, wherein said electronic payment card settlement
means is an automatic vending machine that includes automatic
product or service providing means.

5 28. A mobile electronic commerce system according to
claim 9, wherein said electronic wallet comprises:

input means for entering a numerical value and for
performing a selection operation;

10 a central processing unit for generating data to be
transmitted via said wireless communication means, and for
processing data received via said wireless communication
means;

15 first storage means for storing a control program for
controlling an operation performed by said central processing
unit;

display means for displaying data processed by said
central processing unit; and

second storage means for storing said data processed by
said central processing unit,

20 wherein said electronic ticket, said electronic payment
card or said electronic telephone card is stored in said
second storage means.

25 29. A mobile electronic commerce system according to
claim 10, wherein said electronic payment card settlement
means includes:

optical communication means for communicating with said
electronic wallet;

communication means for communicating with said service

providing means;

input means for entering a numerical value and
performing a selection operation;

5 a central processing unit for generating data to be
transmitted via said optical communication means and said
communication means, and for processing data received via
said optical communication means and said communication
means;

10 first storage means for storing a control program for
controlling an operation performed by said central processing
unit;

display means for displaying data processed by said
central processing unit; and

15 second storage means for storing said data processed by
said central processing unit

wherein a settlement process program module for said
electronic payment card is stored in said second storage
means.

30. A mobile electronic commerce system according to
20 claim 10, wherein said electronic payment card settlement
means comprises:

optical communication means for communicating with said
electronic wallet;

25 radio communication means for communicating with said
service providing means;

product identification means for identifying a product
type;

input means for entering a numerical value and for

10 performing a selection operation;

15 a central processing unit for calculating a charge for
said product, for generating data to be transmitted via said
optical communication means and said radio communication
means, and for processing data received via said optical
communication means and said radio communication means;

20 first storage means for storing a control program for
controlling an operation performed by said central processing
unit;

25 display means for displaying data processed by said
central processing unit;

30 second storage means for storing said data processed by
said central processing unit; and

35 third storage means for storing value information for
said product,

40 wherein a settlement process program module for said
electronic payment card is stored in said second storage
means.

45 31. A mobile electronic commerce system according to
claim 27, wherein said automatic vending machine comprises:

50 optical communication means for communicating with said
electronic wallet;

55 radio communication means for communicating with said
service providing means;

60 selection means for selecting a product to be purchased
or a service;

65 automatic providing means for providing said product or
said service;

a central processing unit for generating data to be transmitted via said optical communication means and said radio communication means, and for processing data received via said optical communication means and said radio communication means;

5 first storage means for storing a control program for controlling an operation performed by said central processing unit;

10 display means for displaying data processed by said central processing unit;

second storage means for storing said data processed by said central processing unit;

15 third storage means for storing value information and stock information for said product; and

fourth storage means for storing promotion information for said product or for said service,

wherein a settlement process program module for said electronic payment card is stored in said second storage means.

20 32. A mobile electronic commerce system according to claim 14 or 21, wherein said electronic telephone card settlement means comprises:

radio communication means for communicating with said electronic wallet;

25 communication means for communicating with said service providing means;

communication line exchange means for exchanging a plurality of communication lines;

a central processing unit for generating data to be transmitted via said radio communication means and said communication means, and for processing data received via said radio communication means and said communication means;

5 first storage means for storing a control program for controlling an operation performed by said central processing unit; and

second storage means for storing said data processed by said central processing unit,

10 wherein a settlement process program module for said electronic telephone card is stored in said second storage means.

15 33. A mobile electronic commerce system according to claim 17, wherein said electronic ticket examination means comprises:

optical communication means for communicating with said electronic wallet;

communication means for communicating with said service providing means;

20 input means for entering a numerical value and for performing a selection operation;

a central processing unit for generating data to be transmitted via said optical communication means and said communication means, and for processing data received via said optical communication means and said communication means;

25 first storage means for storing a control program for controlling an operation performed by said central processing

unit;

display means for displaying data processed by said central processing unit; and

5 second storage means for storing said data processed by said central processing unit,

wherein an examination program module for said electronic ticket is stored in said second storage means.

34. A mobile electronic commerce system according to claim 21, wherein said service providing means comprises:

10 user information storage means for storing information concerning said electronic wallet and information concerning a settlement contract concluded with an owner of said electronic wallet;

15 merchant information storage means for storing information concerning said electronic payment card settlement means, said electronic telephone card settlement means and said electronic ticket examination means, and information concerning a settlement contracts concluded with owners of electronic payment cards, electronic telephone 20 cards and electronic tickets;

settlement processor information storage means for storing information concerning said settlement processing means;

25 payment card issuer information storage means for storing information concerning said payment card issuing means, and information concerning a settlement contract concluded with an owner of said payment card issuing means;

telephone card issuer information storage means for

storing information concerning said telephone card issuing means, and information concerning a settlement contract concluded with an owner of said telephone card issuing means;

5 ticket issuer information storage means for storing information concerning said ticket issuing means, and information concerning a settlement contract concluded with an owner of said ticket issuing means;

10 service director information storage means for storing list information for said electronic wallet, said electronic payment card settlement means, said electronic telephone card settlement means, said electronic ticket examination means, said settlement processing means, said payment card issuing means, said telephone card issuing means and said ticket issuing means, and information concerning said electronic ticket, said electronic payment card and said electronic telephone card; and

15 a computer system for processing data in a service provision process for selling, issuing and managing said electronic ticket, said electronic payment card and said electronic telephone card.

20 35. A mobile electronic commerce system according to claim 11, wherein said settlement processing means comprises:

communication means for communicating with said service providing means;

25 subscriber information storage means for storing information concerning a settlement contract concluded with an owner of said electronic wallet;

member shop information storage means for storing

information concerning settlement contracts concluded with
owners of electronic payment card settlement means,
electronic telephone card settlement means, electronic ticket
examination means, payment card issuing means, telephone card
issuing means, and ticket issuing means; and
5 a computer system for processing data employed in a
settlement process.

36. A mobile electronic commerce system according to
claim 11, wherein said payment card issuing means comprises:

10 communication means for communicating with said service
providing means;

customer information storage means for storing
information concerning the purchase history of a customer;

15 payment card issuance information storage means for
storing information concerning a payment card that has been
issued;

payment card information storage means for storing
information concerning the stock of payment cards; and

20 a computer system for processing data during a payment
card issuing transaction process.

37. A mobile electronic commerce system according to
claim 15, wherein said telephone card issuing means
comprises:

25 communication means for communicating with said service
providing means;

customer information storage means for storing
information concerning the purchase history of a customer;

telephone card issuance information storage means for

storing information concerning a telephone card that has been issued;

telephone card information storage means for storing information concerning the stock of telephone cards; and

5 a computer system for processing data concerning a telephone card issuing transaction process.

38. A mobile electronic commerce system according to claim 19, wherein said ticket issuing means comprises:

10 communication means for communicating with said service providing means;

customer information storage means for storing information concerning the purchase history of a customer;

ticket issuance information storage means for storing information concerning a ticket that has been issued;

15 ticket information storage means for storing information concerning the stock of tickets; and

a computer system for processing data concerning a ticket issuing transaction process.

39. A mobile electronic commerce system according to claim 11, wherein said electronic wallet generates and then transmits, to said service providing means, a payment card application message for the purchase of an electronic payment card; wherein said service providing means, upon receiving said payment card application message, communicates with said payment card issuing means and receives therefrom an electronic payment card issuance request message requesting that said service providing means perform an electronic payment card issuing process and an electronic payment card

charge settlement process; wherein said service providing means, upon receiving said request message, communicates with said settlement processing means to perform the settlement process for the charge for said payment card, generates an 5 electronic payment card from payment card information that is generated by said payment card issuing means and is included in said electronic payment card issuance request message, and transmits said electronic payment card to said electronic wallet; and wherein said electronic wallet, upon receiving said electronic payment card, stores said electronic payment card in said second storage means thereof.

10 40. A mobile electronic commerce system according to claim 28, wherein a micro-check message, generated by an electronic payment card stored in said second storage means, is transmitted to said electronic payment card settlement means in order to confirm the submission of a payment that is the equivalent of an amount entered by said input means.

15 41. A mobile electronic commerce system according to claim 40, wherein said electronic payment card settlement means, upon receiving said micro-check message, generates and then transmits, to said electronic wallet, said reception message to acknowledge that said micro-check message has been received.

20 42. A mobile electronic commerce system according to claim 15, wherein said electronic wallet generates and then transmits, to said service providing means, a telephone card application message requesting the purchase of an electronic telephone card; wherein said service providing means, upon

receiving said telephone card application message,
communicates with said telephone card issuing means and
receives therefrom an electronic telephone card issuance
request message indicating said service providing means has
5 been requested to perform an electronic telephone card
issuing process and an electronic telephone card charge
settlement process; wherein said service providing means,
upon receiving said request message, communicates with said
settlement processing means to perform the settlement for the
charge for said telephone card, generates an electronic
telephone card using telephone card information that is
generated by said telephone card issuing means and is
included in said electronic telephone card issuance request
message, and transmits said electronic telephone card to said
10 electronic wallet; and wherein said electronic wallet, upon
receiving said electronic telephone card, stores said
electronic telephone card in said second storage means
15 thereof.

43. A mobile electronic commerce system according to
20 claim 28, wherein a telephone micro-check message is
generated by an electronic telephone card stored in said
second storage means and is transmitted to said electronic
telephone card settlement means in order to confirm the
submission of a payment that is equivalent to an amount
25 charged by said electronic telephone settlement means.

44. A mobile electronic commerce system according to
claim 43, wherein said electronic telephone card settlement
means, upon receiving said telephone micro-check message,

generates and then transmits, to said electronic wallet, a receipt message acknowledging that said telephone micro-check message has been received.

45. A mobile electronic commerce system according to
5 claim 19, wherein said electronic wallet generates and then transmits, to said service providing means, a ticket application message requesting the purchase of an electronic ticket; wherein said service providing means, upon receiving said ticket application message, communicates with said ticket issuing means, and receives therefrom an electronic ticket issuance request message that indicates said service providing means has been requested to perform an electronic ticket issuing process and an electronic ticket charge settlement process; wherein said service providing means, upon receiving said request message, communicates with said settlement processing means to perform the settlement of the charge for said ticket, generates an electronic ticket from ticket information that is generated by said ticket issuing means and is included in said electronic ticket issuance request message, and transmits said electronic ticket to said electronic wallet; and wherein said electronic wallet, upon receiving said electronic ticket stores said electronic ticket in said second storage means thereof.

46. A mobile electronic commerce system according to
25 claim 28, wherein said electronic wallet generates a ticket presenting message that describes the contents of said electronic ticket stored in said second storage means, and transmits said ticket presenting message to said electronic

ticket examination means.

47. A mobile electronic commerce system according to claim 28, wherein said electronic wallet, upon receiving a command message from said electronic ticket examination means, changes said electronic ticket to a post-examined state, and generates and then transmits, to said electronic ticket examination means, a ticket examination response message that describes the contents of said electronic ticket that has been changed.

48. A mobile electronic commerce system according to claim 47, wherein said electronic ticket examination means, upon receiving said ticket examination response message, generates and then transmits, to said electronic wallet, an examination certificate message that verifies said electronic ticket has been examined.

49. A mobile electronic commerce system according to claim 28, wherein a first electronic wallet generates a payment card transfer certificate message verifying that said electronic payment card stored in said second storage means is to be transferred to a second electronic wallet, and transmits said payment card transfer certificate message via wireless communication means to said second electronic wallet; wherein said second electronic wallet transmits, to said service providing means, said payment card transfer certificate message that is received; wherein said service providing means performs an examination to establish the validity of said payment card transfer certificate message that is received, and transmits, to said second electronic

wallet, the electronic payment card that is described in said payment card transfer certificate message; and wherein said second electronic wallet stores, in said second storage means thereof, said electronic payment card that is received.

5 50. A mobile electronic commerce system according to claim 49, wherein said second electronic wallet, upon receiving said payment card transfer certificate message, generates a payment card receipt message confirming that said payment card transfer certificate message has been received, and transmits said payment card receipt message via said wireless communication means to said first electronic wallet; and wherein said first electronic wallet, upon receiving said payment card receipt message, deletes said electronic payment card stored in said second storage means thereof.

10 51. A mobile electronic commerce system according to claim 28, wherein a first electronic wallet generates a telephone card transfer certificate message confirming that said electronic telephone card stored in said second storage means is to be transferred to a second electronic wallet, and transmits said telephone card transfer certificate message via wireless communication means to said second electronic wallet; wherein said second electronic wallet transmits, to said service providing means, said telephone card transfer certificate message that is received; wherein said service providing means performs an examination to establish the validity of said telephone card transfer certificate message that is received, and transmits, to said second electronic wallet, the electronic telephone card that is described in

10 said telephone card transfer certificate message; and wherein
15 said second electronic wallet stores, in said second storage
means thereof, said electronic telephone card that is
received.

20 52. A mobile electronic commerce system according to
claim 28, wherein said second electronic wallet, upon
receiving said telephone card transfer certificate message,
generates a telephone card receipt message confirming that
said telephone card transfer certificate message has been
received, and transmits said telephone card receipt message
via said wireless communication means to said first
electronic wallet; and wherein said first electronic wallet,
upon receiving said telephone card receipt message, deletes
25 said electronic telephone card stored in said second storage
means thereof.

30 53. A mobile electronic commerce system according to
claim 28, wherein a first electronic wallet generates a
ticket transfer certificate message confirming that said
electronic ticket stored in said second storage means is to
be transferred to a second electronic wallet, and transmits
said ticket transfer certificate message via wireless
communication means to said second electronic wallet; wherein
said second electronic wallet transmits, to said service
providing means, said ticket transfer certificate message
35 that is received; wherein said service providing means
performs an examination to establish the validity of said
ticket transfer certificate message that is received, and
transmits, to said second electronic wallet, an electronic

ticket that is described in said ticket transfer certificate message; and wherein said second electronic wallet stores, in said second storage means thereof, said electronic ticket that is received.

5 54. A mobile electronic commerce system according to claim 53, wherein said second electronic wallet, upon receiving said ticket transfer certificate message, generates a ticket receipt message confirming that said ticket transfer certificate message has been received, and transmits said ticket receipt message via said wireless communication means to said first electronic wallet; and wherein said first electronic wallet, upon receiving said ticket receipt message, deletes said electronic ticket stored in said second storage means thereof.

10 55. A mobile electronic commerce system according to claim 11, wherein said electronic wallet generates and then transmits, to said service providing means, an electronic payment card installation request message requesting the installation of an electronic payment card; wherein said service providing means, upon receiving said payment card installation request message, communicates with said payment card issuing means and receives therefrom an electronic payment card installation request message indicating that said service providing means is requested to install an electronic payment card; wherein said service providing means, upon receiving said request message, generates an electronic payment card using payment card information that is generated by said payment card issuing means and is included in said

5 electronic payment card installation request message, and transmits said electronic payment card to said electronic wallet; and wherein said electronic wallet, upon receiving said electronic payment card stores said electronic payment card in said second storage means thereof.

10 56. A mobile electronic commerce system according to claim 55, wherein said electronic payment card installation request message includes electronic payment card installation information that is entered by input means for said electronic wallet and that uniquely describes an electronic payment card that is to be installed.

15 57. A mobile electronic commerce system according to claim 15, wherein said electronic wallet generates and then transmits, to said service providing means, an electronic telephone card installation request message for requesting the installation of an electronic telephone card; wherein said service providing means, upon receiving said telephone card installation request message, communicates with said telephone card issuing means, and receives therefrom an electronic telephone card installation request message indicating that said service providing means is to install an electronic telephone card; wherein said service providing means, upon receiving said request message, generates an electronic telephone card using telephone card information that is generated by said telephone card issuing means and that is included in said electronic telephone card installation request message, and transmits said electronic telephone card to said electronic wallet; and wherein said

electronic wallet, upon receiving said electronic telephone card, stores said electronic telephone card in said second storage means thereof.

5 58. A mobile electronic commerce system according to
claim 57, wherein said electronic telephone card installation
request message includes said electronic telephone card
installation information that is entered by input means for
said electronic wallet and that uniquely describes an
electronic telephone card that is to be installed.

10 59. A mobile electronic commerce system according to
claim 19, wherein said electronic wallet generates and then
transmits, to said service providing means, an electronic
ticket installation request message requesting the
installation of an electronic ticket; wherein said service
providing means, upon receiving said ticket installation
request message, communicates with said ticket issuing means,
and receives therefrom an electronic ticket installation
request message indicating that said service providing means
15 is to install an electronic ticket; wherein said service
providing means, upon receiving said request message,
generates an electronic ticket using ticket information that
is generated by said ticket issuing means and is included in
said electronic ticket installation request message, and
transmits said electronic ticket to said electronic wallet;
20 and wherein said electronic wallet, upon receiving said
electronic ticket, stores said electronic ticket in said
second storage means thereof.

25 60. A mobile electronic commerce system according to

claim 59, wherein said electronic ticket installation request message includes said electronic ticket installation information that is entered by input means for said electronic wallet and that uniquely describes an electronic ticket that is to be installed.

61. A mobile electronic commerce system according to claim 55, wherein said electronic payment card installation information, said electronic telephone card installation information or said electronic ticket installation information consists of first identification information describing a type of electronic payment card, a type of electronic telephone card or a type of electronic ticket, and second identification information that uniquely describes an electronic payment card, an electronic telephone card or an electronic ticket, of a type described using said first identification information, that is to be installed; and wherein said second identification information is information generated at random.

62. A mobile electronic commerce system according to claim 61, wherein said first identification information and said second identification information are represented by 8-digit numerals and 32-digit numerals.

63. A mobile electronic commerce system according to claim 55, wherein an object whereon or wherein said electronic payment card installation information, said electronic telephone installation information or said electronic ticket installation information is printed or engraved is employed as sales distribution means or transfer

means for said electronic payment card, said electronic telephone card or said electronic ticket.

64. A mobile electronic commerce system according to claim 55, wherein a recording medium on which said electronic payment card installation information, said electronic telephone installation information or said electronic ticket installation information is stored is employed as sales distribution means or transfer means for an electronic payment card, an electronic telephone card or an electronic ticket.

65. A mobile electronic commerce system according to claim 28, wherein said service providing means generates and then transmits, to said electronic wallet, a modification command message for the modification of the contents of said electronic ticket; and said electronic wallet, upon receiving said modification command message, updates said electronic ticket stored in said second storage means to provide a new electronic ticket as is described in said modification command message.

66. A mobile electronic commerce system according to claim 28, wherein said service providing means generates and then transmits, to said electronic wallet, a modification notification message for the modification of the contents of said electronic ticket; wherein said electronic wallet, upon receiving said modification notification message, generates and then transmits, to said service providing means, a reaction selection message acknowledging receipt of the message for the modification of said contents of said

electronic ticket; wherein said service providing means, upon receiving said reaction selection message, generates and then transmits, to said electronic wallet, a modification command message instructing the modification of said contents of said electronic ticket; and wherein said electronic wallet, upon receiving said modification command message, updates said electronic ticket stored in said second storage means to provide a new electronic ticket, that is described in said modification command message.

10 67. A mobile electronic commerce system according to claim 28, wherein said service providing means generates and then transmits, to said electronic wallet, a modification notification message for the modification of the contents of said electronic ticket; wherein said electronic wallet, upon receiving said modification notification message, generates and then transmits, to said service providing means, a reaction selection message requesting a refund for said electronic ticket; wherein said service providing means, upon receiving said reaction selection message, communicates with said settlement processing means to issue a refund for said electronic ticket, and generates and then transmits, to said electronic wallet, a refund receipt message indicating that a refund process has been completed; and wherein said electronic wallet, upon receiving said refund receipt message, 20 deletes said electronic ticket from said second storage means.

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68. A mobile electronic commerce system according to claim 21, wherein a computer system in said service providing means comprises:

user information processing means for communicating with said electronic wallet and for processing information stored in user information storage means;

5 merchant information processing means for communicating with said electronic payment card settlement means, said electronic telephone card settlement means or said electronic ticket examination means, and for processing information stored in merchant information storage means;

10 settlement processor information processing means for communicating with said electronic settlement processing means, and for processing information stored in settlement processor information storage means;

15 payment card issuer information processing means for communicating with said payment card issuing means, and for processing information stored in payment card issuer information storage means;

20 telephone card issuer information processing means for communicating with said telephone card issuing means, and for processing information stored in telephone card issuer information storage means;

ticket issuer information processing means for communicating with said ticket issuing means, and for processing information stored in ticket issuer information storage means;

25 service director information processing means for communicating with said user information processing means, said merchant information processing means, said settlement processor information processing means, said payment card

issuer information processing means, said telephone card issuer information processing means and said ticket issuer information processing means, and for interacting with those means while processing data during a service providing process; and

service manager information processing means for controlling the generation and the deletion of said user information processing means, said merchant information processing means, said settlement processor information processing means, said payment card issuer information processing means, said telephone card issuer information processing means, said ticket issuer information processing means and said service director information processing means.

69. A mobile electronic commerce system according to claim 34, wherein said electronic wallet generates and then transmits, to said service providing means, a payment card registration request message requesting that said service providing means register, as an electronic payment card that is to be used by the owner of said electronic wallet, an electronic payment card that is stored in said second storage means; and wherein said service providing means, upon receiving said payment card registration request message, registers said electronic payment card for use in said service director information storage means.

70. A mobile electronic commerce system according to claim 69, wherein, said service providing means, upon receiving said payment card registration request message, generates and then transmits, to said electronic wallet, a

5 registered card certificate confirming that said electronic payment card has been registered for use; and wherein said electronic wallet stores, in said second storage means, said registered card certificate that is received and changes the state of said electronic payment card to the usable state.

10 71. A mobile electronic commerce system according to claim 34, wherein said electronic wallet generates and then transmits, to said service providing means, a telephone card registration request message requesting that service providing means register, as an electronic telephone card that is to be used by the owner of said electronic wallet, an electronic telephone card that is stored in said second storage means; and wherein said service providing means, upon receiving said telephone card registration request message, registers said electronic telephone card for use in said service director information storage means.

15 72. A mobile electronic commerce system according to claim 71, wherein said service providing means, upon receiving said telephone card registration request message, generates and then transmits, to said electronic wallet, a registered card certificate confirming that said electronic telephone card has been registered for use; and wherein said electronic wallet stores, in said second storage means, said registered card certificate that is received and changes the state of said electronic telephone card to the usable state.

20 73. A mobile electronic commerce system according to claim 34, wherein said electronic wallet generates and then transmits, to said service providing means, a ticket

registration request message requesting that said second storage means register, as an electronic ticket that is to be used by the owner of said electronic wallet, an electronic ticket that is stored in said second storage means; and 5 wherein said service providing means, upon receiving said ticket registration request message, registers said electronic ticket for use in said service director information storage means.

74. A mobile electronic commerce system according to claim 73, wherein said service providing means, upon receiving said ticket registration request message, generates and then transmits, to said electronic wallet, a registered ticket certificate that verifies said electronic ticket has been registered for use; and wherein said electronic wallet stores, in said second storage means, said registered ticket certificate that is received, and changes the state of said electronic ticket to the usable state.

75. A mobile electronic commerce system according to claim 28, wherein said electronic payment card comprises:

20 a payment card program;
presented card information describing the contents of said electronic payment card when issued; and
a card certificate indicating that said electronic payment card is authentic. Said payment card program 25 includes:

electronic payment card state management information;
and
payment card program data for specifying an operation to

be performed by said electronic payment card. The digital signature of the owner of said service providing means is provided for said presented card information.

76. A mobile electronic commerce system according to
5 claim 75, wherein said payment card program includes a card signature private key that is employed for a digital signature provided for said electronic payment card, and wherein said card certificate is a public key certificate verifying that a card signature public key that is paired with said card signature private key is authentic.

77. A mobile electronic commerce system according to
claim 75, wherein a settlement program module for said electronic payment card includes two cryptographic keys, an accounting device authentication private key and a card authentication public key, and wherein said payment card program includes an accounting device authentication public key, which is paired with said accounting device authentication private key, and a card authentication private key, which is paired with said card authentication public key.

20 78. A mobile electronic commerce system according to
claim 75, wherein said payment card program data includes:
a transaction module program for specifying the
procedures to be used for message data that are exchanged by
said electronic wallet and said electronic payment card
25 settlement means;

a display module program for specifying the manner in
which said electronic payment card is to be displayed; and
representative component information for said electronic

payment card,

wherein a central processing unit in said electronic wallet processes, in accordance with said transaction module program for said electronic payment card, said message data that are exchanged with said electronic payment card settlement means, and displays said representative component information in accordance with said display module program of said electronic payment card, so that on display means said electronic payment card is displayed in said electronic wallet.

79. A mobile electronic commerce system according to claim 34, wherein a template program that constitutes a model for said electronic payment card is stored in said payment card issuer information storage means for said service providing means.

80. A mobile electronic commerce system according to claim 79, wherein said template program for said electronic payment card includes:

a transaction module program for said electronic payment card;
a display module program; and
representative component information.

Therefore, various types of electronic payment cards can be safely issued.

81. A mobile electronic commerce system according to claim 28, wherein said electronic telephone card comprises:
a telephone card program;
presented card information describing the contents of

10 said electronic telephone card when issued; and

15 a card certificate indicating that said electronic telephone card is authentic,

20 wherein said telephone card program includes:

25 electronic telephone card state management information; and

30 telephone card program data for specifying an operation to be performed by said electronic telephone card, and

35 wherein the digital signature of the owner of said service providing means is provided for said presented card information.

40 82. A mobile electronic commerce system according to claim 81, wherein said telephone card program includes a card signature private key that is employed for a digital signature provided for said electronic telephone card, and wherein said card certificate is a public key certificate verifying that a card signature public key that is paired with said card signature private key is authentic.

45 83. A mobile electronic commerce system according to claim 81, wherein a settlement program module for said electronic telephone card includes two cryptographic keys, an accounting device authentication private key and a card authentication public key, and wherein said telephone card program includes an accounting device authentication public key, which is paired with said accounting device authentication private key, and a card authentication private key, which is paired with said card authentication public key.

50 84. A mobile electronic commerce system according to

claim 81, wherein said telephone card program data includes:

a transaction module program for specifying the procedures to be used for message data that are exchanged by said electronic wallet and said electronic telephone card
5 settlement means;

a display module program for specifying the manner in which said electronic telephone card is to be displayed; and representative component information for said electronic telephone card, and

10 wherein a central processing unit in said electronic wallet processes, in accordance with said transaction module program for said electronic telephone card, said message data that are exchanged with said electronic telephone card
15 settlement means, and displays said representative component information in accordance with said display module program for said electronic telephone card, so that on display means said electronic telephone card is displayed in said electronic wallet.

85. A mobile electronic commerce system according to
20 claim 34, wherein a template program that constitutes a model for said electronic telephone card is stored in said telephone card issuer information storage means for said service providing means.

86. A mobile electronic commerce system according to
25 claim 85, wherein said template program for said electronic telephone card includes:

a transaction module program for said electronic telephone card;

a display module program; and
representative component information.

87. A mobile electronic commerce system according to
claim 28, wherein said electronic ticket comprises:

5 a ticket program;
presented ticket information describing the contents of
said electronic ticket when issued; and
a ticket certificate indicating that said electronic
ticket is authentic,

10 wherein said ticket program includes:
electronic ticket state management information; and
ticket program data for specifying an operation to be
performed by said electronic ticket, and
wherein the digital signature of the owner of said
15 service providing means is provided for said presented ticket
information.

88. A mobile electronic commerce system according to
claim 87, wherein said ticket program includes a ticket
signature private key that is employed for a digital
20 signature provided for said electronic ticket, and wherein
said ticket certificate is a public key certificate verifying
that a ticket signature public key that is paired with said
ticket signature private key is authentic.

89. A mobile electronic commerce system according to
25 claim 87, wherein an examination program module for said
electronic ticket includes two cryptographic keys, a gate
authentication private key and a ticket authentication public
key, and wherein said ticket card program includes a gate

authentication public key, which is paired with said gate authentication private key, and a ticket authentication private key, which is paired with said ticket authentication public key.

5 90. A mobile electronic commerce system according to claim 87, wherein said ticket program data includes:

10 a transaction module program for specifying the procedures to be used for message data that are exchanged by said electronic wallet and said electronic ticket examination means;

15 a display module program for specifying the manner in which said electronic ticket is to be displayed; and

20 representative component information for said electronic ticket, and

25 wherein a central processing unit in said electronic wallet processes, in accordance with said transaction module program for said electronic ticket, said message data that are exchanged with said electronic ticket examination means, and displays said representative component information in accordance with said display module program for said electronic ticket, so that on display means said electronic ticket is displayed in said electronic wallet.

30 91. A mobile electronic commerce system according to claim 34, wherein a template program that constitutes a model for said electronic ticket is stored in said ticket issuer information storage means for said service providing means.

35 92. A mobile electronic commerce system according to claim 91, wherein said template program for said electronic

ticket includes:

a transaction module program for said electronic ticket;
a display module program; and
representative component information.

5 93. A mobile electronic commerce system according to
claim 39, wherein identification information that describes a
payment method selected by said input means for said
electronic wallet is included in said payment card
application message issued by said electronic wallet when
requesting the purchase of an electronic payment card.

10 94. A mobile electronic commerce system according to
claim 79, wherein said electronic payment card issuance
request message or said electronic payment card installation
request message includes template program identification
information for designating, in the order to be used for the
generation of an electronic payment card, one of a plurality
of template programs that are stored in said payment card
issuer information storage means.

15 95. A mobile electronic commerce system according to
claim 78, wherein said electronic payment card issuance
request message or said electronic payment card installation
request message includes representative component information
describing the representative component information to be
used for an electronic payment card that is to be generated.

20 96. A mobile electronic commerce system according to
claim 76, wherein said electronic wallet generates and then
transmits, to said service providing means, a payment card
registration request message requesting that said service

providing means register, as an electronic payment card that
is to be used by the owner of said electronic wallet, said
electronic payment card stored in said second storage means
for said electronic wallet; wherein said service providing
means, upon receiving said payment card registration request
message, newly generates, for said electronic payment card, a
card signature private key, a card signature public key and a
registered card certificate for authenticating said card
signature public key, registers said electronic payment card
signature public key, registers said electronic payment card
for use in said service director information storage means,
and then transmits, to said electronic wallet, said card
signature private key and said registered card certificate;
and wherein said electronic wallet updates said card
signature private key and said registered card certificate
that are in storage by replacing them with those that have
newly been received, and changes said state management
information for said electronic payment card to a usable
state.

97. A mobile electronic commerce system according to
claim 28, wherein said electronic wallet employs an
electronic payment card, which is selected by input means for
said electronic wallet from among those stored in said second
storage means, to generate a micro-check message that
verifies a payment corresponding to an amount entered by said
input means, and transmits said micro-check message to said
electronic payment card settlement means.

98. A mobile electronic commerce system according to
claim 28, wherein said electronic wallet employs an

electronic payment card, which is selected by input means of said electronic wallet from among those stored in said second storage means, to generate a payment offer message that offers a payment corresponding to an amount entered by said 5 input means, and transmits said payment offer message to said electronic payment card settlement means; wherein said electronic payment card settlement means, upon receiving said payment offer message, generates and then transmits, to said electronic wallet, a payment offer response message that assesses a charge corresponding to an amount entered by input means for said electronic payment card settlement means; wherein said electronic wallet, upon receiving said payment offer response message and if said assessed charge is equal to or smaller than an amount entered by said input means for 10 said electronic wallet, subtracts said assessed charge from a remaining amount stored on said electronic payment card, and generates and then transmits, to said electronic payment card settlement means, a micro-check message validating a payment corresponding to said assessed charge; wherein said 15 electronic payment card settlement means stores said received micro-check message in said second storage means for said electronic payment card settlement means, and generates and then transmits, to said electronic wallet, a receipt message confirming that said micro-check message has been received; 20 and wherein said electronic wallet stores said received receipt message in said second storage means for said electronic wallet.

25

99. A mobile electronic commerce system according to

claim 28, wherein said payment offer message includes:

a payment amount entered by said input means of said electronic wallet;

presented card information and a registered card
5 certificate for said electronic payment card; and
state management information to which a digital
signature has been added using said card signature private
key.

100. A mobile electronic commerce system according to
claim 76, wherein said micro-check message includes:

a payment amount;
an amount remaining stored on said electronic payment
card;

identification information for said electronic payment
card settlement means; and

identification information for the owner of said
electronic payment card settlement means. Further, a digital
signature is provided for said micro-check message by using
said card signature private key for said electronic payment
card.

101. A mobile electronic commerce system according to
claim 100, wherein the digital signature of the owner of said
electronic wallet is also provided for said micro-check
message.

25 102. A mobile electronic commerce system according to
claim 40, wherein said micro-check message includes a micro-
check issuing number representing the order in which micro-
check messages are generated by said electronic payment card.

103. A mobile electronic commerce system according to
claim 98, wherein, at a time designated by said service
providing means, said electronic payment card settlement
means generates an upload data message that includes data
5 stored in said second storage means for said electronic
payment card settlement means, and then transmits said upload
data message to said service providing means; wherein said
service providing means, upon receiving said upload data
message, examines the validity of a micro-check that is
10 included in said upload data message by comparing said micro-
check with registration information for said electronic
payment card that is registered in said service director
information storage means, and generates and then transmits,
15 to said electronic payment card settlement means, an update
data message that includes update data for said second
storage means for said electronic payment card settlement
means; and wherein said electronic payment card settlement
means extracts said update data from said update data message
20 that is received, and updates data stored in said second
storage means.

104. A mobile electronic commerce system according to
claim 28, wherein a first electronic wallet generates a
payment card transfer offer message containing an offer to
transfer, to a second electronic wallet, an electronic
25 payment card that is stored in said second storage means, and
then transmits said payment card transfer offer message, via
said wireless communication means, to said second electronic
wallet; wherein said second electronic wallet, upon receiving

5 said payment card transfer offer message, generates a payment card transfer offer response message indicating that the contents of said payment card transfer offer message are accepted, and then transmits said payment card transfer offer response message, via said wireless communication means, to said first electronic wallet; and wherein said first electronic wallet, upon receiving said payment card transfer offer response message, generates and then transmits, to said second electronic wallet, a payment card transfer certificate message confirming the transfer of said electronic payment card to said second electronic wallet.

10 105. A mobile electronic commerce system according to claim 104, wherein said payment card transfer offer message includes:

15 presented card information, and a card certificate or a registered card certificate for said electronic payment card; and

state management information having an added digital signature prepared using a card signature private key.

20 106. A mobile electronic commerce system according to claim 104, wherein said payment card transfer offer message includes a public key certificate for the owner of said first electronic wallet; wherein a digital signature of said owner of said first electronic wallet is provided for said payment card transfer offer message; wherein said payment card transfer offer/response message includes a public key certificate for the owner of said second electronic wallet; wherein a digital signature of said owner of said second

electronic wallet is provided for said payment card transfer offer message; wherein said payment card transfer certificate message includes identification information for said public key certificate of said owner of said first electronic wallet and identification information for said public key certificate of said owner of said second electronic wallet; and wherein a digital signature/using a card signature private key for said electronic payment card and a digital signature of said owner of said first electronic wallet are provided for said payment card transfer certificate message.

107. A mobile electronic commerce system according to claim 42, wherein identification information that describes a payment method selected by said input means of said electronic wallet is included in said telephone card application message issued by said electronic wallet when requesting the purchase of an electronic telephone card.

108. A mobile electronic commerce system according to claim 85, wherein said electronic telephone card issuance request message or said electronic telephone card installation request message includes template program identification information for designating, following the order that is to be used for the generation of electronic telephone cards, one of a plurality of template programs that are stored in said telephone card issuer information storage means.

109. A mobile electronic commerce system according to claim 84, wherein said electronic telephone card issuance request message or said electronic telephone card

installation request message includes representative component information describing representative component information to be used for an electronic telephone card that is to be generated.

5 110. A mobile electronic commerce system according to claim 82, wherein said electronic wallet generates and then transmits, to said service providing means, a telephone card registration request message requesting that said service providing means register, as an electronic telephone card that is to be used by the owner of said electronic wallet, said electronic telephone card stored in said second storage means for said electronic wallet, wherein said service providing means, upon receiving said telephone card registration request message, newly generates, for said electronic telephone card, a card signature private key, a card signature public key and a registered card certificate for confirming said card signature public key, registers for use said electronic telephone card in said service director information storage means, and then transmits, to said electronic wallet, said card signature private key and said registered card certificate; and wherein said electronic wallet updates said card signature private key and said registered card certificate that are in storage by replacing them with those that have newly been received, and changes 20 said state management information for said electronic telephone card to a usable state.

25

111. A mobile electronic commerce system according to claim 28, wherein said electronic wallet employs an

electronic telephone card, which is selected by input means for said electronic wallet from among those stored in said second storage means, to generate a micro-check message verifying a payment corresponding to an amount entered by 5 said input means, and transmits said micro-check message to said electronic telephone card settlement means.

112. A mobile electronic commerce system according to claim 28, wherein said electronic wallet employs an electronic telephone card, which is selected by input means for said electronic wallet from among those stored in said second storage means, to generate a micro-check call request message requesting a radio communication service in order to communicate with a side that is designated by said input means, and transmits said micro-check call request message to 10 said electronic telephone card settlement means; wherein said electronic telephone card settlement means, upon receiving said micro-check call request message, generates and then transmits, to said electronic wallet, a micro-check call 15 response message for an amount charged that corresponds to a communication fee; said electronic wallet, upon receiving said micro-check call response message, subtracts the amount charged from the remaining amount stored on said electronic telephone card, and generates and then transmits, to said 20 electronic telephone card settlement means, a telephone micro-check message verifying the payment of an amount corresponding to said amount charged; wherein said electronic 25 telephone card settlement means, upon receiving said telephone micro-check message, generates and then transmits,

to said electronic wallet, a receipt message confirming the receipt of said telephone micro-check message; and wherein said electronic wallet stores said received receipt message in said second storage means for said electronic wallet.

5 113. A mobile electronic commerce system according to claim 28, wherein said electronic telephone card settlement means, when radio wireless communication service is provided, generates and then transmits, to said electronic wallet, a communication fee charge message for an amount charged that corresponds to an additional communication fee; wherein said electronic wallet, upon receiving said communication fee charge message, subtracts said amount that is charged from an amount remaining on said electronic telephone card, and generates and then transmits, to said electronic telephone card settlement means, a new telephone micro-check message verifying payment of the total amount charged; wherein said electronic telephone card settlement means generates and then transmits, to said electronic wallet, a receipt message confirming that said telephone micro-check message has been received; wherein said electronic wallet updates a receipt message stored in said second storage means for said electronic wallet by storing therein said receipt message that is newly received; and wherein said electronic telephone card settlement means, when provision of said radio wireless communication service is terminated, stores the latest telephone micro-check message in said second storage means for said electronic telephone card settlement means.

10 20 25

114. A mobile electronic commerce system according to

claim 112 or 113, wherein said micro-check call request message includes:

identification information for said side that is designated by said input means of said electronic wallet;

5 presented card information and a registered card certificate for said electronic telephone card; and

state management information accompanied by a digital signature that is provided by using a card signature private key.

10 115. A mobile electronic commerce system according to claim 82, wherein said telephone micro-check message includes:

a payment amount;
a amount remaining stored on said electronic telephone card;

identification information for said electronic telephone card settlement means; and

identification information for the owner of said electronic telephone card settlement means, and

20 wherein a digital signature is provided for said telephone micro-check message by using said card signature private key of said electronic telephone card.

116. A mobile electronic commerce system according to claim 115, wherein not only said digital signature using said 25 card signature private key for said electronic telephone card, but also the digital signature of the owner of said electronic wallet is provided for said telephone micro-check message.

117. A mobile electronic commerce system according to
claim 43, wherein said telephone micro-check message includes
a telephone micro-check issuing number representing the order
in which telephone micro-check messages are generated by said
5 electronic telephone card.

10
118. A mobile electronic commerce system according to
claim 113, wherein, at a time designated by said service
providing means, said electronic telephone card settlement
means generates an upload data message that includes data
stored in said second storage means for said electronic
telephone card settlement means, and then transmits said
upload data message to said service providing means; wherein
said service providing means, upon receiving said upload data
message, examines the validity of a telephone micro-check
15 that is included in said upload data message by comparing
said telephone micro-check with registration information for
said electronic telephone card that is registered in said
service director information storage means, and generates and
then transmits, to said electronic telephone card settlement
20 means, an update data message that includes update data for
said second storage means for said electronic telephone card
settlement means; and wherein said electronic telephone card
settlement means extracts said update data from said update
data message that is received, and updates data stored in
25 said second storage means.

119. A mobile electronic commerce system according to
claim 28, wherein a first electronic wallet generates a
telephone card transfer offer message offering to transfer,

to a second electronic wallet, an electronic telephone card that is stored in said second storage means, and transmits said telephone card transfer offer message via said wireless communication means to said second electronic wallet; wherein
5 said second electronic wallet, upon receiving said telephone card transfer offer message, generates a telephone card transfer offer response message indicating that the contents of said telephone card transfer offer message are accepted, and then transmits said telephone card transfer offer response message via said wireless communication means to
10 said first electronic wallet; and wherein said first electronic wallet, upon receiving said telephone card transfer offer response message, generates and then transmits, to said second electronic wallet, a telephone card transfer certificate message confirming the transfer of said electronic telephone card to said second electronic wallet.

120. A mobile electronic commerce system according to claim 119, wherein said telephone card transfer offer message includes:

20 presented card information and a card certificate or a registered card certificate for said electronic telephone card; and

state management information accompanied by a digital signature added by using a card signature private key.

25 121. A mobile electronic commerce system according to claim 119, wherein said telephone card transfer offer message includes a public key certificate for the owner of said first electronic wallet; the digital signature of said owner of

said first electronic wallet is provided for said telephone card transfer offer message; wherein said telephone card transfer offer response message includes a public key certificate for the owner of said second electronic wallet; wherein the digital signature of said owner of said second electronic wallet is provided for said telephone card transfer offer message; wherein said telephone card transfer certificate message includes identification information for said public key certificate for said owner of said first electronic wallet and identification information for said public key certificate for said owner of said second electronic wallet; and wherein a digital signature using a card signature private key for said electronic telephone card and the digital signature of said owner of said first electronic wallet are provided for said telephone card transfer certificate message.

122. A mobile electronic commerce system according to claim 45, wherein identification information that describes a payment method selected by said input means of said electronic wallet is included in said ticket application message issued by said electronic wallet when requesting the purchase of an electronic ticket.

123. A mobile electronic commerce system according to claim 91, wherein said electronic ticket issuance request message or said electronic ticket installation request message includes template program identification information for designating, following the order that is to be used for the generation of electronic tickets, one of a plurality of

template programs that are stored in said ticket issuer information storage means.

124. A mobile electronic commerce system according to claim 90, wherein said electronic ticket issuance request message or said electronic ticket installation request message includes representative component information describing representative component information for an electronic ticket that is to be generated.

125. A mobile electronic commerce system according to claim 88, wherein said electronic wallet generates and then transmits, to said service providing means, a ticket registration request message requesting that said service providing means register, as an electronic ticket that is to be used by the owner of said electronic wallet said electronic ticket stored in said second storage means for said electronic wallet; wherein said service providing means, upon receiving said ticket registration request message, newly generates, for said electronic ticket, a ticket signature private key, a ticket signature public key and a registered ticket certificate for verifying said ticket signature public key, registers said electronic ticket for use in said service director information storage means, and then transmits, to said electronic wallet, said ticket signature private key and said registered ticket certificate; and wherein said electronic wallet updates said ticket signature private key and said registered ticket certificate that are stored by replacing them with those that have been newly received, and changes said state management information

for said electronic ticket to a usable state.

126. A mobile electronic commerce system according to
claim 28, wherein said electronic wallet generates a ticket
presenting message in which is designated an electronic
ticket that is selected, from among those stored in said
second storage means, by input means for said electronic
wallet, and transmits said ticket presenting message to said
electronic ticket examination means.

127. A mobile electronic commerce system according to
claim 126, wherein said electronic ticket examination means,
upon receiving said ticket presenting message, generates and
then transmits, to said electronic wallet, a ticket
examination message instructing the modification of said
electronic ticket to a post-examined state; wherein said
electronic wallet, upon receiving said ticket examination
message, changes said electronic ticket to said post-examined
state, and generates and then transmits, to said electronic
ticket examination means, a ticket examination response
message that describes the contents of the modified
electronic ticket; wherein said electronic ticket examination
means stores said received ticket examination response
message in said second storage means for said electronic
ticket examination means, and generates and then transmits,
to said electronic wallet, an examination certificate message
certifying that said electronic ticket has been examined; and
wherein said electronic wallet stores said received
examination certificate message in said second storage means
for said electronic wallet.

128. A mobile electronic commerce system according to
claim 126, wherein said ticket presenting message includes:

presented ticket information and a registered ticket
certificate for said electronic ticket; and

5 state management information accompanied by a digital
signature provided by using a ticket signature private key.

129. A mobile electronic commerce system according to
claim 88, wherein said ticket examination response message
includes:

10 state management information for said electronic ticket;
identification information for said electronic ticket
examination means; and

identification information for the owner of said
electronic ticket examination means, and

15 wherein a digital signature is provided for said ticket
examination response message by using said ticket signature
private key for said electronic ticket.

130. A mobile electronic commerce system according to
claim 129, wherein said ticket examination response message

20 includes identification information for said electronic
ticket examination means and identification information for
the owner of said electronic ticket examination means, and
wherein said digital signature prepared using said ticket
signature private key for said electronic ticket and the
25 digital signature of the owner of said electronic wallet are
provided for said ticket examination response message.

131. A mobile electronic commerce system according to
claim 47, wherein said ticket examination response message

includes a ticket examination number representing the order in which ticket examination response messages are generated by said electronic ticket.

132. A mobile electronic commerce system according to
5 claim 127, wherein, at a time designated by said service providing means, said electronic ticket examination means generates an upload data message that includes data stored in said second storage means for said electronic ticket examination means, and then transmits said upload data message to said service providing means; wherein said service providing means, upon receiving said upload data message, determines the validity of a ticket examination response that is included in said upload data message by comparing said ticket examination response with registration information for said electronic ticket that is registered in said service director information storage means, and generates and then transmits, to said electronic ticket examination means, an update data message that includes update data for said second storage means for said electronic ticket examination means; and wherein said electronic ticket examination means extracts said update data from said update data message that is received, and updates data stored in said second storage means.

133. A mobile electronic commerce system according to
25 claim 28, wherein a first electronic wallet generates a ticket transfer offer message offering to transfer, to a second electronic wallet, an electronic ticket that is stored in said second storage means, and then transmits said ticket

transfer offer message via said wireless communication means to said second electronic wallet; wherein said second electronic wallet, upon receiving said ticket transfer offer message, generates a ticket transfer offer response message 5 indicating the contents of said ticket transfer offer message are acceptable, and then transmits said ticket transfer offer response message via said wireless communication means to said first electronic wallet; and wherein said first electronic wallet, upon receiving said ticket transfer offer response message, generates and then transmits, to said second electronic wallet, a ticket transfer certificate message confirming the transfer of said electronic ticket to said second electronic wallet.

134. A mobile electronic commerce system according to claim 133, wherein said ticket transfer offer message includes:

presented ticket information and a ticket certificate or a registered ticket certificate for said electronic ticket; and

20 state management information accompanied by a digital signature that is added by using a ticket signature private key.

135. A mobile electronic commerce system according to claim 133, wherein said ticket transfer offer message includes a public key certificate for the owner of said first electronic wallet; wherein the digital signature of said owner of said first electronic wallet is provided for said ticket transfer offer message; wherein said ticket transfer

offer response message includes a public key certificate for the owner of said second electronic wallet; wherein the digital signature of said owner of said second electronic wallet is provided for said ticket transfer offer message; 5 wherein said ticket transfer certificate message includes identification information for said public key certificate for said owner of said first electronic wallet and identification information for said public key certificate for said owner of said second electronic wallet; and wherein a digital signature using a ticket signature private key for said electronic ticket and the digital signature of said owner of said first electronic wallet are provided for said ticket transfer certificate message.

136. A mobile electronic commerce system according to claim 39, wherein settlement option information for deciding which procedures to use for settlement is included in said electronic payment card issuance request message, in said electronic telephone card issuance request message or in said electronic ticket issuance request message.

20 137. A mobile electronic commerce system according to claim 136, wherein said service providing means, upon receiving said electronic payment card issuance request message, said electronic telephone card issuance request message or said electronic ticket issuance request message, 25 generates and then transmits, to said electronic wallet, an electronic payment card, an electronic telephone card or an electronic ticket before performing a price settlement in accordance with said settlement option information.

138. A mobile electronic commerce system according to
claim 39, wherein said service providing means, upon
receiving said electronic payment card issuance request
message, said electronic telephone card issuance request
5 message or said electronic ticket issuance request message,
generates and then transmits, to said electronic wallet, an
electronic payment card, an electronic telephone card or an
electronic ticket, and a temporary receipt message describing
the contents of a settlement before performing a price
settlement in accordance with said settlement option
10 information.

139. A mobile electronic commerce system according to
claim 28, wherein data concerning said electronic payment
card, said electronic telephone card and said electronic
ticket belonging to the owner of said electronic wallet, and
15 data processed by said central processing unit of said
electronic wallet are stored in said second storage means for
said electronic wallet or in said user information storage
means for said service providing means; wherein said data are
20 managed by describing, in said second storage means for said
electronic wallet, identification information for said data,
and addresses of said data in said corresponding storage
means; wherein, when data at an address in said user
information storage means are to be processed, said
25 electronic wallet generates and then transmits, to said
service providing means, a remote access request message
requesting address data; wherein said service providing means,
upon receiving said remote access request message, generates

and then transmits, to said electronic wallet, a remote access data message in which said requested data are included; and wherein said electronic wallet, upon receiving said remote access data message, extracts said requested data
5 from said message.

140. A mobile electronic commerce system according to claim 1, wherein said electronic wallet employs a ferroelectric nonvolatile memory as storage means.

141. A mobile electronic commerce system according to claim 10, wherein a ferroelectric nonvolatile memory is employed as storage means for said electronic payment card settlement means.

142. A printed matter according to claim 63, wherein said object is one whereon or wherein electronic payment card installation information, electronic telephone card installation information, or electronic ticket installation information is printed or engraved in a form readable by a person or reading means.
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143. A printed matter according to claim 142, wherein a coating is applied to a portion of said object whereon or wherein said electronic payment card installation information, said electronic telephone card installation information or said electronic ticket installation information is printed or engraved in order to disable the reading of said electronic payment card installation information, said electronic telephone card installation information or said electronic ticket installation information, and wherein said coating is removable.
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144. A printed matter according to claim 142, wherein, to prevent holographic counterfeiting, a micro-character or a micro-pattern is printed on or etched in said object.

145. A recording medium according to claim 64, on which electronic payment card installation information, electronic telephone card installation information, or electronic ticket installation information is recorded using a form that is readable by recording/reproduction means.

146. A recording medium, on which a control program for said central processing unit of said electronic wallet defined in claim 28 is stored in a form readable by a computer.

147. A recording medium, on which a control program for said central processing unit of said electronic payment card settlement means defined in claim 29 is recorded in a form readable by a computer.

148. A recording medium, on which a control program for said central processing unit of said electronic telephone card settlement means defined in claim 32 is recorded in a form readable by a computer.

149. A recording medium, on which a control program for said central processing unit of said electronic ticket examination means defined in claim 33 is recorded in a form readable by a computer.

150. A recording medium, on which a processing program for said computer system of said service providing means defined in claim 34 is recorded in a form readable by a computer.

151. A recording medium, on which a processing program for said computer system of said settlement processing means defined in claim 35 is recorded in a form readable by a computer.

152. A recording medium, on which a processing program for said computer system of said payment card issuing means defined in claim 36 is recorded in a form readable by a computer.

153. A recording medium, on which a processing program for said computer system of said telephone card issuing means defined in claim 37 is recorded in a form readable by a computer.

154. A recording medium, on which a processing program for said computer system of said ticket issuing means defined in claim 38 is recorded in a form readable by a computer.

155. An electronic wallet used for a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side, said electronic wallet comprising:

input means for entering a numerical value and for performing a selection operation;

a central processing unit for generating data to be transmitted via said wireless communication means, and for processing data received via said wireless communication means;

first storage means for storing a control program for

controlling an operation performed by said central processing unit;

display means for displaying data processed by said central processing unit;

5 second storage means for storing said data processed by said central processing unit, and an electronic negotiable card received through said wireless communication means; and third storage means for storing identification information and authorization information for the user of said electronic wallet,

10 wherein for carrying, said third storage means is detachable from said electronic wallet,

15 wherein, when said third storage means is removed from said electronic wallet, said electronic negotiable card stored in said second storage means is erased, and

20 wherein, when said third storage means is attached to said electronic wallet, said electronic wallet communicates with said service providing means via said wireless communication means, and receives said electronic negotiable card that said user of said electronic wallet owns and stores said electronic negotiable card in said second storage means.

156. An electronic wallet, used for a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side, said electronic wallet comprising:

input means for entering a numerical value and for

performing a selection operation;

a central processing unit for generating data to be transmitted via said wireless communication means, and for processing data received via said wireless communication means;

first storage means for storing a control program for controlling an operation performed by said central processing unit;

display means for displaying data processed by said central processing unit;

second storage means for storing said data processed by said central processing unit; and

third storage means for storing an electronic negotiable card received via said wireless communication means,

wherein for carrying, said third storage means is detachable from said electronic wallet.

157. An electronic wallet, used for a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means and for receiving a product or a service, or a required permission, from a supply side, said electronic wallet comprising:

input means for entering a numerical value and for performing a selection operation;

a central processing unit for generating data to be transmitted via said wireless communication means, and for processing data received via said wireless communication means;

first storage means for storing a control program for controlling an operation performed by said central processing unit;

5 display means for displaying data processed by said central processing unit;

second storage means for storing said data processed by said central processing unit; and

IC card reading/writing means,

wherein said electronic negotiable card received via said wireless communication means is stored in an IC card that is loaded in said IC card reading/writing means.

158. An electronic wallet comprising:

wireless communication means;

means for installing a program for an electronic negotiable card obtained from a predetermined agency via said wireless communication means; and

means for, in order to receive a product or a service from a seller or to obtain a permission, employing said electronic negotiable card with said wireless means in accordance with said program for said electronic negotiable card.

159. An electronic wallet according to claim 158, wherein an inherent private key for providing a digital signature for data to be transmitted to said seller is included in said program for said electronic negotiable card, so that said electronic negotiable card is employed by means provided for employing said electronic negotiable card.

160. An electronic wallet according to claim 158,

further comprising:

means for, when said installation means receives a modification instruction message from said predetermined agency instructing a change to said program for said 5 electronic negotiable card, changing, in accordance with said modification instruction message, said program for said negotiable card that is installed.

161. An electronic wallet according to claim 158,

further comprising:

means for, when a modification notification message for the changing of the contents of said program for said 10 electronic negotiable card is received from said predetermined agency, generating a reaction selection message indicating that the modification of the contents of said 15 program is accepted; and

means for, when said installation means receives a modification instruction message from said predetermined agency instructing the changing of said program for said 20 electronic negotiable card, changing in accordance with said modification instruction message said program for said negotiable card that is installed.

162. An electronic wallet according to claim 158,

further comprising:

means for, when a modification notification message that 25 the contents of said electronic negotiable card is to be changed is received from said predetermined agency, generating a reaction selection message requesting a refund process for said electronic negotiable card, and for

transmitting said reaction selection message to said predetermined agency; and

means for, when a refund receipt message is received from said predetermined agency indicating the termination of said refund process, deleting said program for said negotiable card that is installed.

163. An electronic wallet according to claim 158, wherein said program for said negotiable card is a coupon ticket that has at least two functions for a payment card, a telephone card and a ticket.

164. A seller terminal comprising:
wireless communication means;
means for installing, from a predetermined agency, a program module that defines a settlement process performed by a seller when an electronic negotiable card is used; and
means for, in accordance with said program module, communicating with an electronic wallet via said wireless communication means and for performing said settlement process for said seller when said electronic negotiable card is employed.

165. An automatic vending machine comprising:
wireless communication means;
means for installing, from a predetermined agency, a program module that defines a settlement process performed by said automatic vending machine when an electronic negotiable card is used;

means for, in accordance with said program module, communicating with an electronic wallet via said wireless

communication means and for performing said settlement process for said automatic vending machine when said electronic negotiable card is employed; and

means for providing a product or a service when said settlement process for said automatic vending machine has been completed.

166. A call switching center machine comprising:
wireless communication means;
means for installing, from a predetermined agency, a program module that defines a settlement process performed by said call switching center machine when an electronic negotiable card is used;

means for, in accordance with said program module, communicating with an electronic wallet via said wireless communication means and for performing said settlement process for said call switching center machine when said electronic negotiable card is employed; and

means for providing a product or a service when said settlement process for said call switching center machine has been completed.

167. A management machine for a service providing agency comprising:

communication means;
means for generating a program for an electronic negotiable card in order to install said program in an electronic wallet, and for transmitting said program for said electronic negotiable card to said electronic wallet by radio via said communication means; and

means for transmitting to a seller terminal, in order to
install said program in said seller terminal, a program
module that defines a settlement process performed by a
seller when said program for said electronic negotiable card
5 is employed.

168. A management machine for a service providing
agency comprising:

communication means;

means for receiving from an electronic wallet, by radio
via said communication means, a purchase order request for a
program for an electronic negotiable card;

means for receiving data, concerning a negotiable card
that is to be issued, from a negotiable card issuing agency
that issues said electronic negotiable card that is ordered
by said purchase order request;

means for performing, together with a settlement agency,
a settlement process that accompanies the purchase of said
negotiable card;

means for generating a program for an electronic
20 negotiable card, based on data that are received from said
negotiable card issuing agency and that concern a negotiable
card to be issued, and for transmitting said program for said
negotiable card to said electronic wallet by radio via said
communication means; and

25 means for transmitting to a seller terminal, in order to
install said program in said seller terminal, a program
module that defines a settlement process performed by a
seller when said program for said electronic negotiable card

is employed.

169. A management machine for a negotiable card program issuing agency according to claim 168, further comprising:

means for generating a modification instruction message for changing said program for said negotiable card that is installed in said electronic wallet; and

means for transmitting said modification instruction message to said electronic wallet via said communication means.

170. A management machine for a negotiable card program issuing agency according to claim 168, further comprising:

means for generating a modification notification message for the modification of said program for said negotiable card that is installed in said electronic wallet;

means for receiving, from said electronic wallet, a reaction selection message indicating said modification has been accepted;

means for, upon receiving said reaction selection message, generating a modification instruction message for changing said program for said negotiable card that is installed in said electronic wallet; and

means for transmitting said modification instruction message to said electronic wallet via said communication means .

25 171. A management machine for a negotiable card program issuing agency according to claim 168, further comprising:

means for generating a modification notification message for the modification of said program for said negotiable card

that is installed in said electronic wallet;

means for receiving from said electronic wallet, in response to said modification notification, a reaction selection message requesting a refund for said electronic negotiable card;

means for, upon receiving said reaction selection message, performing a refund settlement process for a predetermined settlement agency;

means for generating a refund receipt message indicating that said refund settlement process has been completed; and

means for transmitting said refund receipt message to said electronic wallet via said communication means.

172. A management machine for a service providing agency, which transmits, to an electronic wallet, an electronic negotiable card program, including a card signature private key, a card certificate, a card authorization private key and an accounting machine authorization private key, and which transmits to a seller terminal a settlement program, including a card authorization public key that is paired with said card authorization private key and an accounting machine authorization private key that is paired with said accounting machine authorization public key, said management machine comprising:

means for managing, for each negotiable card type, the pair comprising said card authorization private key, which differs for each negotiable card type, and said card authorization public key, and the pair comprising said accounting machine authorization private key and said

accounting machine authorization public key; and
means for, in order to issue a negotiable card,
generating a card signature private key, which is inherent to
said negotiable card, and a card certificate, and for
5 generating a negotiable card by using said card authorization
private key, which corresponds to the type of said negotiable
card, and said accounting machine authorization public key.

173. A mobile electronic commerce system according to
claim 3, wherein said electronic wallet includes means for
generating first identification information for identifying a
transaction conducted with said supply side, and for
transmitting said first identification information to said
supply side; wherein said supply side includes means for
generating second identification information for identifying
5 a transaction conducted with said electronic wallet, and for
transmitting said second identification information to said
electronic wallet; wherein said electronic wallet includes
means for generating said electronic check that contains
first said information and said second information; and
20 wherein said supply side includes means for generating a
receipt that contains said first identification information
and said second identification information.

174. A mobile electronic commerce system according to
claim 50, wherein said first electronic wallet includes means
25 for generating first identification information for
identifying an electronic payment card transfer process
performed with said second electronic wallet, and for
transmitting said first identification information to said

second electronic wallet; wherein said second electronic wallet includes means for generating second identification information for identifying an electronic payment card transfer process performed with said first electronic wallet, and for transmitting said second identification information to said first electronic wallet; wherein said first electronic wallet includes means for generating said payment card transfer certificate message that contains said first identification information and said second identification information; and wherein said second electronic wallet includes means for generating said payment card receipt message that contains said first identification information and said second identification information.

175. A mobile electronic commerce system according to claim 52, wherein said first electronic wallet includes means for generating first identification information for identifying an electronic telephone card transfer process performed with said second electronic wallet, and for transmitting said first identification information to said second electronic wallet; wherein said second electronic wallet includes means for generating second identification information for identifying an electronic telephone card transfer process performed with said first electronic wallet, and for transmitting said second identification information to said first electronic wallet; wherein said first electronic wallet includes means for generating said telephone card transfer certificate message that contains said first identification information and said second

identification information; and wherein said second electronic wallet includes means for generating said telephone card receipt message that contains said first identification information and said second identification information.

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176. A mobile electronic commerce system according to claim 54, wherein said first electronic wallet includes means for generating first identification information for identifying an electronic ticket transfer process performed with said second electronic wallet, and for transmitting said first identification information to said second electronic wallet; wherein said second electronic wallet includes means for generating second identification information for identifying an electronic ticket transfer process performed with said first electronic wallet, and for transmitting said second identification information to said first electronic wallet; wherein said first electronic wallet includes means for generating said ticket transfer certificate message that contains said first identification information and said second identification information; and wherein said second electronic wallet includes means for generating said ticket receipt message that contains said first identification information and said second identification information.

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177. A mobile electronic commerce system according to claim 54, wherein said first electronic wallet includes means for generating first identification information for identifying a negotiable card transfer process performed with said second electronic wallet, and for transmitting said

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first identification information to said second electronic wallet; wherein said second electronic wallet includes means for generating second identification information for identifying a negotiable card transfer process performed with 5 said first electronic wallet, and for transmitting said second identification information to said first electronic wallet; wherein said first electronic wallet includes means for generating said payment card transfer certificate message that contains said first identification information and said second identification information; and wherein said second electronic wallet includes means for generating said payment card receipt message that contains said first identification information and said second identification information.

178. A recording medium on which is stored a program for an electronic payment card used by an electronic wallet in a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means, and for receiving a product or a service, or a required permission, from a supply side, and on which said program for said electronic payment card is so stored as to be readable by a computer, wherein said electronic payment card includes a payment card program, presented card information that describes the contents of said electronic payment card that is issued, and a card certificate for proving that said electronic payment card is real; wherein said payment card program further includes management information for the status of said electronic payment card,

and payment card program data that specifies the operations performed by said electronic payment card; and wherein said presented card information is accompanied by the digital signature of the owner of the service providing means.

5 179. A recording medium according to claim 178, wherein said payment card program includes a card signature private key that is used for a digital signature for an electronic payment card, and wherein said card certificate is a public key certificate that verifies a card signature public key that is paired with said card signature private key.

10 180. A recording medium according to claim 178, wherein a clearing program module for said electronic payment card includes two cryptographic keys, an accounting machine authorization private key and a card authorization public key; and wherein said payment card program includes an accounting machine authorization public key that is paired with said accounting machine authorization private key, and a card authorization private key that is paired with said card authorization public key.

15 181. A recording medium according to claim 178, whereof said payment card program data includes a transaction module program, for specifying the procedures employed for message data that are exchanged by said electronic wallet and electronic payment card settlement means, a display module program, for specifying a display for an electronic payment card, and representative component information for an electronic payment card; and whereof, in accordance with said transaction module program for said electronic payment card,

a central processing unit in said electronic wallet processes said message data that are exchanged with said electronic payment card clearing means, and displays said representative component information in accordance with said display module 5 program for said electronic payment card, so that said electronic payment card is displayed on display means of said electronic wallet.

182. A recording medium on which is stored a program for a negotiable card used by an electronic wallet in a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means, and for receiving a product or a service, or a required permission, from a supply side, and on which said program for said negotiable card is so stored as to be readable by a computer, wherein said negotiable card includes a negotiable card program, presented card information that describes the contents of said negotiable card that is issued, and a card certificate for proving that said negotiable card is authentic; wherein said negotiable card program further includes management information for the status of said negotiable card, and negotiable card program data that specifies the operations performed by said negotiable card; and wherein said presented card information is accompanied by 20 the digital signature of the owner of the service providing means.

183. A recording medium according to claim 182, wherein said electronic negotiable card program includes a card

signature private key that is used for a digital signature for an electronic negotiable card, and wherein said card certificate is a public key certificate that verifies a card signature public key that is paired with said card signature 5 private key.

184. A recording medium according to claim 182, wherein a clearing program module for said electronic negotiable card includes two cryptographic keys, an accounting machine authorization private key and a card authorization public key; and wherein said negotiable card program includes an accounting machine authorization public key that is paired with said accounting machine authorization private key, and a card authorization private key that is paired with said card authorization public key.

185. A recording medium according to claim 178, whereof said negotiable card program data includes a transaction module program, for specifying the procedures employed for message data that are exchanged by said electronic wallet and electronic negotiable card settlement means, a display module program, for specifying a display for an electronic negotiable card, and representative component information for an electronic negotiable card; and whereof, in accordance with said transaction module program for said electronic negotiable card, a central processing unit in said electronic wallet processes said message data that are exchanged with said electronic negotiable card clearing means, and displays said representative component information in accordance with said display module program for said electronic negotiable 20 25

card, so that said electronic negotiable card is displayed on display means of said electronic wallet.

186. A recording medium on which is stored a program for an electronic telephone card used by an electronic wallet in a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means, and for receiving a product or a service, or a required permission, from a supply side, and on which said program for said electronic telephone card is so stored as to be readable by a computer, wherein said electronic telephone card includes a telephone card program, presented card information that describes the contents of said electronic telephone card that is issued, and a card certificate for proving that said electronic telephone card is authentic; wherein said telephone card program further includes management information for the status of said electronic telephone card, and telephone card program data that specifies the operations performed by said electronic telephone card; and wherein said presented card information is accompanied by the digital signature of the owner of the service providing means.

187. A recording medium on which is stored a program for an electronic telephone card used by an electronic wallet in a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means, and for receiving a product or a service, or a

required permission, from a supply side, and on which said program for said electronic telephone card is so stored as to be readable by a computer, wherein said telephone card program includes a card signature private key that is used for a digital signature for an electronic telephone card, and wherein said card certificate is a public key certificate that verifies a card signature public key that is paired with said card signature private key.

188. A recording medium on which is stored a program for an electronic telephone card used by an electronic wallet in a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means, and for receiving a product or a service, or a required permission, from a supply side, and on which said program for said electronic telephone card is so stored as to be readable by a computer, whereof, in accordance with said transaction module program for said electronic telephone card, a central processing unit in said electronic wallet processes said message data that are exchanged with said electronic telephone card clearing means, and displays said representative component information in accordance with said display module program for said electronic telephone card, so that said electronic telephone card is displayed on display means of said electronic wallet, and whereof said telephone card program data includes a transaction module program, for specifying the procedures employed for message data that are exchanged by said electronic wallet and electronic telephone

card settlement means, a display module program, for specifying a display for an electronic telephone card, and representative component information for an electronic telephone card.

5 189. A recording medium on which is stored a program for an electronic ticket used by an electronic wallet in a mobile electronic commerce system for paying, via wireless communication means, a required amount from said electronic wallet that includes said wireless communication means, and for receiving a product or a service, or a required permission, from a supply side, and on which said program for said electronic ticket is so stored as to be readable by a computer, wherein said electronic ticket includes a ticket program, presented card information that describes the contents of said electronic ticket that is issued, and a card certificate for proving that said electronic ticket is authentic; wherein said ticket program further includes management information for the status of said electronic ticket, and ticket program data that specifies the operations performed by said electronic ticket; and wherein said presented card information is accompanied by the digital signature of the owner of the service providing means.

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25 190. A recording medium according to claim 189, wherein said ticket program includes a ticket signature private key that is used for a digital signature for an electronic ticket, and wherein said ticket certificate is a public key certificate that verifies a ticket signature public key that is paired with said ticket signature private key.

191. A recording medium according to claim 189, wherein
an examination program module for said electronic ticket
includes two cryptographic keys, a gate authorization private
key and a ticket authorization public key; and wherein said
5 ticket program includes a gate authorization public key that
is paired with said gate authorization private key, and a
ticket authorization private key that is paired with said
ticket authorization public key.

10 192. A recording medium according to claim 189, whereof
said ticket program data includes a transaction module
program, for specifying the procedures employed for message
data that are exchanged by said electronic wallet and
electronic ticket examination means, a display module program,
15 for specifying a display for an electronic payment card, and
representative component information for an electronic
ticket; and whereof, in accordance with said transaction
module program for said electronic ticket, a central
processing unit in said electronic wallet processes said
message data that are exchanged with said electronic ticket
20 examination means, and displays said representative component
information in accordance with said display module program
for said electronic ticket, so that said electronic ticket is
displayed on display means of said electronic wallet.

25 193. A recording medium on which a program for a
payment card, which is used for electronic commerce that
employs an electronic wallet, is so stored as to be readable
by a computer, and whereon as information indicating the
contents of a negotiable card, included for said payment card,

is ASCII information for which tag information that describes the information type is additionally provided.

194. A recording medium on which a program for a telephone card, which is used for electronic commerce that employs an electronic wallet, is so stored as to be readable by a computer, and whereon as information indicating the contents of an electronic telephone card, included for said telephone card, is ASCII information for which tag information that describes the information type is additionally provided.

195. A recording medium on which a program for a ticket, which is used for electronic commerce that employs an electronic wallet, is so stored as to be readable by a computer, and whereon as information indicating the contents of an electronic ticket, included for said ticket, is ASCII information for which tag information that describes the information type is additionally provided.